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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,590	10/11/2001	Dean Bernard Jacobs	BEAS-01077US2	8686

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EXAMINER	
OSMAN, RAMY M	
ART UNIT	**PAPER NUMBER**
2157	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/975,590	JACOBS ET AL.	
	Examiner	Art Unit	
	Ramy M. Osman	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. This communication is in response to RCE amendment filed February 9, 2007. No claims were amended or added. No new arguments were presented. Claims 1-41 are pending.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 2/9/2007 has been considered by the examiner and is accepted.

Response to Arguments

3. Applicant's arguments filed 1/9/2007 have been fully considered but they are not persuasive.

4. Applicant provided a diagram "A" to show "how claims can make sense", and to overcome the112 2nd paragraph rejection.

In reply, applicants claim language is broad and unclear as mentioned in the Final Action dated 8/9/2006. Applicant has not resolved the claim language to overcome the 112 second paragraph rejection and to also overcome the broad interpretation of the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In claim 1 for example, Applicants state "*a packet of information*" is sent from a master server, and wherein this information relates "*to a change in the data stored*". The claim further goes on to state that a "*delta*" is sent from the master server, and wherein the delta contains

information needed to perform an update. But the claim is not explicitly clear how these two data elements (the "*packet of information*" and the "*delta*") are different from each other. Both of the data elements contain information needed to perform an update. It appears that the claim contains redundant steps. App is requested to either 1) remove the redundant step of sending update information twice, or 2) to more clearly define the differences between the "*packet of information*" and the "*delta*".

5. Applicant argues that regarding claims 1 and 5, Van Ryzin does not teach "a delta be sent from the master server to the slave server if the data on the slave server does not correspond to the version number" because in Van Ryzin, entire files are apparently sent to a network computer rather than deltas.

In reply, Firstly, the claims fail to make a clear distinction between "*packet of information*" and the "*delta*". The claims are silent as to weather a "delta" is a whole file that contains an update or if it is only a portion of a file that contains the actual change/update to the file. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Secondly, the files that are sent in Van Ryzin reference inherently contain deltas. Therefore the broad limitation is taught by Van Ryzin. (column 4 line 50 - column 5 line 15).

3. Regarding claims 2-4,6-41, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1,5,14,19-21 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are unclear. For example, on lines 5-6 of claim 1, if the packet of information includes update information then there would be no reason to request a delta, on lines 9-10, which contains update information. This is because the update information already arrived at the slave by way of the packet of information. The other independent claims contain similar deficiencies. The claims seem to be redundant, missing steps or be worded incorrectly.

8. Claim 14 (and any subsequent similar claim) rejected under 35 U.S.C. 112, second paragraph, as being indefinite. On lines 9-10, it is unclear what it means to: "commit the information if the slave server has not missed a previous change". It is unclear how a 'previous change' can be missed. This rejection also applies to other claims that may contain this limitation.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-41 rejected under 35 U.S.C. 102(b) as being anticipated by Van Ryzin (US Patent No 5,909,689).

11. In reference to claims 1 and 5, Van Ryzin teaches a method for replicating data from a master server to a slave server over a network, the method comprising the steps of:

sending a packet of information from the master server to the slave server, the information relating to a change in the data stored on the master server and containing a version number for the present state of the data, the packet of information including first updated information for the data (column 4 lines 50-60,66,67);

allowing the slave server to determine whether the data on the slave server has been updated to correspond to the version number contained in the packet (column 4 lines 50-60);

requesting a delta be sent from the master server to the slave server if the data on the slave server does not correspond to the version number contained in the packet, the delta containing information needed to update the slave server (column 4 lines 50-60 and column 6 line 66 – column 5 line 15).

12. In reference to claim 2, Van Ryzin teaches a method according to claim 1, further comprising: storing an original copy of the data on the master server (column 2 lines 10-20 & 60-67).

13. In reference to claim 3, Van Ryzin teaches a method according to claim 1, further comprising: persistently caching the data on a local disk for each slave server (column 5 lines 5-16 and column 6 lines 30-60).

14. In reference to claim 4, Van Ryzin method according to claim 1, further comprising: determining a unique version number for the current state of the data on the master server if the data has changed (column 2 lines 1-35).

15. In reference to claim 6, Van Ryzin teaches a method according to claim 5, further comprising: sending the delta from the master server to the slave server (column 2 lines 1-35).

16. In reference to claim 7, Van Ryzin a method according to claim 5, further comprising: committing the delta to the slave server (column 2 lines 1-35).

17. In reference to claim 8, Van Ryzin teaches a method according to claim 5, further comprising: updating the version number of the slave server after committing the delta.(column 5 lines 5-50).

18. In reference to claim 9, Van Ryzin teaches a method according to claim 5, further comprising: periodically sending the version number from the master server to a slave server (column 4 lines 45-60 and column 6 lines 40-55).

19. In reference to claim 10, Van Ryzin teaches a method according to claim 5, further comprising: sending the version number to a slave server until the slave server acknowledges receipt of the version number (column 4 lines 50-67).

20. In reference to claim 11, Van Ryzin teaches a method according to claim 5, further comprising: including data with the version number that is necessary to update a slave server (column 4 lines 50-67).

21. In reference to claim 12, Van Ryzin teaches a method according to claim 11, further comprising: committing the data necessary to update the slave server as soon as it is received (column 5 lines 50-60).

22. In reference to claim 13, Van Ryzin teaches a method according to claim 5, further comprising: determining the scope of the delta before sending it from the master server (column 4 lines 50-56).

23. In reference to claims 14,19-21 and 38-41, Van Ryzin teaches a method, computer readable medium, system and computer system respectively, for replicating data over a network including a master server and at least one slave server, the method comprising the steps of:

sending a packet of information from a master server to each slave server on the network, the Information relating to a change in the data stored on the master server and containing a current version number for the present state of the data, the information further relating to previous changes in the data and a version number for each previous change (column 4 lines 50-60,66,67);

allowing each slave server to determine whether the slave server has been updated to correspond to the current version number (column 4 lines 50-60);

allowing each slave server to commit the information if the slave server has not missed a previous change (column 4 lines 56-60,66,67); and

allowing each slave server having missed a previous change to request that previous change be sent from the master server to the slave server before the slave server commits the packet of information (column 2 lines 10-20, column 4 lines 50-60,66,67 and column 5 lines 1-60).

24. In reference to claim15, Van Ryzin teaches a according to claim 14, further comprising: committing the packet of information to a slave server (column 2 lines 1-35).

25. In reference to claim 16, Van Ryzin teaches a method according to claim 14, further comprising: aborting the commit of the packet of information if a slave server cannot commit the update (column 4 lines 55-67).

26. In reference to claim 17, Van Ryzin teaches a method according to claim 14, further comprising: determining the scope of the delta before sending it from the master server (column 4 lines 50-56).

27. In reference to claim 18, Van Ryzin teaches a method according to claim 14, further comprising: including the scope of each the previous changes in the delta. (column 4 lines 50-56).

28. In reference to claims 22, Van Ryzin teaches method according to claim 21, further comprising: determining whether each of the at least one slave server can commit the data (column 2 lines 1-35).

29. In reference to claim 23, Van Ryzin teaches method according to claim 21, further comprising: determining whether each of the at least one slave server has sent a response back to the master server (column 2 lines 1-35 and column 4 line 50 – column 5 line 50).

30. In reference to claim 24, Van Ryzin teaches method according to claim 21, further comprising: determining whether any of the at least one slave server can commit the data (column 7 lines 5-67).

31. In reference to claim 25, Van Ryzin teaches method according to claim 21, further comprising: committing the data only if each of the at least one slave server can process the commit (column 4 line 50 – column 5 line 50).

32. In reference to claim 26, Van Ryzin teaches method according to claim 21, further comprising: aborting the data only if any of the at least one slave server cannot process the commit (column 2 lines 1-35 and column 4 line 50 – column 5 line 50).

33. In reference to claim 27, Van Ryzin teaches method according to claim 21, further comprising: committing the data to those slaves that are able to process the commit (column 4 line 50 – column 5 line 50).

34. In reference to claim 28, method according to claim 21, further comprising: multicasting the update to any of the at least one slave server that were not able to process the commit (column 2 lines 1-35 and column 4 line 50 – column 5 line 50).

35. In reference to claim 29, Van Ryzin teaches method according to claim 21, further comprising: heart beating the new version number to any of the at least one slave server that were not able to process the commit (column 4 line 50 – column 5 line 50).

36. In reference to claim 30, Van Ryzin teaches method according to claim 21, further comprising: requesting a delta be sent to a slave server that was not able to process the commit (column 4 line 50 – column 5 line 50).

37. In reference to claims 31-37, Van Ryzin teaches a method, a computer readable medium, a computer program product, and a system respectively, for replicating data over a network, the method comprising the steps of:

(a) determining whether the replication should be accomplished in a one or two phase method (column 4 lines 57-67 and column 5 lines 30-40);

(b) sending replication information determined to be accomplished in a one phase method by:

sending a packet of information from the master server to the slave server, the information relating to a change in the data stored on the master server and containing a version number for the present state of the data; receiving the packet of information to a slave server (column 2 lines 1-35 and column 4 lines 50-67);

allowing the slave server to determine whether the data on the slave server has been updated to correspond to the version number (column 2 lines 1-35 and column 4 lines 50-67); and

requesting a delta be sent from the master server to the slave server if the slave server does not correspond to the version number, the delta containing information needed to update the slave server (column 2 lines 1-35 and column 4 lines 50-67);

(c) sending replication information determined to he accomplished in a two phase method by:

sending a packet of information from the master server to the slave server, the information relating to a change in the data stored on the master server and containing a version number for the present state of the data (column 5 lines 6-61);

allowing the slave server to determine whether the slave server has been updated to correspond to the version number, and to further determine whether the slave server can process the packet of information (column 5 lines 6-61);

sending a signal from the slave server to the master server indicating whether the slave server needs to be updated and whether the slave server can process the packet of information (column 5 lines 6-61);

sending a response signal from the master server to the slave server indicating whether the slave server should commit to the packet of information; and committing the packet of information to the slave server if so indicated by the response signal (column 5 lines 6-61).

38. Applicant has not presented any amended or new claims. Applicant has not presented any new arguments that were different from the arguments submitted on 1/9/2007 and were responded to in an Advisory action dated 2/2/2007. Accordingly:

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramy M. Osman whose telephone number is (571) 272-4008. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RMO
April 11, 2007

4/16/07

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